

# SEQUENCE LISTING

<110> Thayer, Edward C.  
Webster, Philippa J.

<120> Human Secreted Protein, Zzp1

<130> 00-54

<150> 60/222,814

<151> 2000-08-04

<150> 60/260,512

<151> 2001-01-09

<160> 5

<170> FastSEQ for Windows Version 4.0

 $\langle 210 \rangle$  1

<211> 1908

<212> DNA

<213> Homo sapiens

 $\langle 220 \rangle$ 

<221> CDS

<222> (1)...(1908)

 $\langle 400 \rangle$  1

atg gca gga ggc tca gcc acg acc tgg ggt tac cct gtg gcc ctg cta 48  
Met Ala Gly Gly Ser Ala Thr Thr Trp Gly Tyr Pro Val Ala Leu Leu  
1 5 10 15

ctg ctg gtt gcc acc ctg ggg ctg ggt agg tgg ctc cag ccc gac cca 96  
Leu Leu Val Ala Thr Leu Gly Leu Gly Arg Trp Leu Gln Pro Asp Pro  
20 25 30

ggc ctc cgg cac agc tac gac tgt ggg atc aag gga atg cag ctg ctg 144  
Gly Leu Arg His Ser Tyr Asp Cys Gly Ile Lys Gly Met Gln Leu Leu  
35 40 45

gtg ttc ccc agg cca ggc cag act ctc cgc ttc aag gtg gtg gat gaa	192
Val Phe Pro Arg Pro Gly Gln Thr Leu Arg Phe Lys Val Val Asp Glu	
50 55 60	
ttt ggg aac cga ttt gat gtc aac aac tgc tcc atc tgc tac cac tgg	240
Phe Gly Asn Arg Phe Asp Val Asn Asn Cys Ser Ile Cys Tyr His Trp	
65 70 75 80	
gtc acc tcc agg ccg cag gag cct gca gtc ttc tcg gcc gat tac aga	288
Val Thr Ser Arg Pro Gln Glu Pro Ala Val Phe Ser Ala Asp Tyr Arg	
85 90 95	
ggc tgc cac gtg ctg gag aag gat ggg cgt ttc cac ctg agg gtg ttc	336
Gly Cys His Val Leu Glu Lys Asp Gly Arg Phe His Leu Arg Val Phe	
100 105 110	
atg gag gct gtg ctg ccc aat ggt cgt gtg gat gtg gca caa gac gct	384
Met Glu Ala Val Leu Pro Asn Gly Arg Val Asp Val Ala Gln Asp Ala	
115 120 125	
act ctg atc tgt ccc aaa cct gac ccc tcc cgg act ctg gac tcc cag	432
Thr Leu Ile Cys Pro Lys Pro Asp Pro Ser Arg Thr Leu Asp Ser Gln	
130 135 140	
ctg gca cca ccc gcc atg ttc tct gtc tca acc cca caa acc ctt tcc	480
Leu Ala Pro Pro Ala Met Phe Ser Val Ser Thr Pro Gln Thr Leu Ser	
145 150 155 160	
ttc ctc ccc acc tct ggc cat acc tcc caa ggc tct ggc cat gcc ttt	528
Phe Leu Pro Thr Ser Gly His Thr Ser Gln Gly Ser Gly His Ala Phe	
165 170 175	
ccc agc cca ctg gac cca ggg cac agc tct gtc cac cca acc cct gct	576
Pro Ser Pro Leu Asp Pro Gly His Ser Ser Val His Pro Thr Pro Ala	
180 185 190	
tta cca tcc cct gga cct gga cct acc ctc gcc acc ctg gct caa ccc	624
Leu Pro Ser Pro Gly Pro Gly Pro Thr Leu Ala Thr Leu Ala Gln Pro	
195 200 205	
cac tgg ggc acc ttg gaa cac tgg gat gtg aac aaa cga gat tac ata	672
His Trp Gly Thr Leu Glu His Trp Asp Val Asn Lys Arg Asp Tyr Ile	
210 215 220	

"000000" 000000

ggg Gly 225	acc Thr 225	cac His 225	ctg Leu 225	agc Ser 230	cag Gln 230	gag Glu 230	cag Gln 235	tgc Cys 235	cag Gln 235	gtg Val 235	gcc Ala 235	tca Ser 240	ggg Gly 240	cac His 240	ctc Leu 240	720	
ccc Pro	tgc Cys	atc Ile	gtg Val	aga Arg 245	aga Arg	act Thr	tca Ser	aaa Lys	gaa Glu 250	gcc Ala	tgt Cys	cag Gln	cag Gln	gct Ala	ggc Gly	255	768
tgc Cys	tgc Cys	tat Tyr	gac Asp 260	aac Asn	acc Thr	aga Arg	gag Glu	gtt Val 265	ccc Pro	tgt Cys	tac Tyr	tat Tyr	ggc Gly	aac Asn	aca Thr	270	816
gct Ala	act Thr	gtc Val 275	cag Gln	tgc Cys	ttc Phe	aga Arg	gat Asp	ggc Gly	tac Tyr	ttc Phe	gtc Val	ctc Leu	gta Val	gtg Val	tcc Ser	280	864
caa Gln 290	gaa Glu	atg Met	gcc Ala	ttg Leu	aca Thr	cac His 295	agg Arg	atc Ile	aca Thr	ctg Leu	gcc Ala 300	aac Asn	atc Ile	cac His	ctg Leu	305	912
gcc Ala 305	tat Tyr	gcc Ala	ccc Pro	acc Thr	agc Ser 310	tgc Cys	tcc Ser	cca Pro	aca Thr	cag Gln	cac His	acg Thr	gaa Glu	gct Ala	ttc Phe	315	960
gtg Val	gtc Val	ttc Phe	tac Tyr	ttc Phe 325	cct Pro	ctc Leu	acc Thr	cac His	tgt Cys 330	gga Gly	acc Thr	aca Thr	atg Met	cag Gln	gtg Val	335	1008
gct Ala	ggc Gly	gac Asp	cag Gln	ctc Leu	atc Ile	tat Tyr	gag Glu	aac Asn	tgg Trp	ctg Leu	gtg Val	tct Ser	ggc Gly	atc Ile	cac His	340	1056
atc Ile	caa Gln	aag Lys 355	ggg Gly	cca Pro	cag Gln	ggg Gly	tcc Ser	atc Ile	acg Thr	cgg Arg	gac Asp	agc Ser	acc Thr	ttc Phe	cag Gln	360	1104
ctt Leu	cat His	gtg Val	cgc Arg	tgt Cys	gtc Val	ttc Phe	aac Asn	gcc Ala	agt Ser	gac Asp	ttc Phe	ctg Leu	ccc Pro	att Ile	cag Gln	370	1152

gca Ala 385	tcc Ser	att Ile	ttc Phe	cca Pro	ccc Pro	cca Pro	tcg Ser	cct Pro	gct Ala	cct Pro	atg Met	acc Thr	cag Gln	ccc Pro	ggc Gly	1200	
				390						395						400	
ccc Pro	ctg Leu	cgg Arg	ctt Leu	gag Glu	ctg Leu	cgg Arg	att Ile	gcc Ala	aaa Lys	gac Asp	gag Glu	acc Thr	tgc Cys	agc Ser	tcg Ser	1248	
				405						410						415	
tac Tyr	tat Tyr	ggg Gly	gag Glu	gat Asp	gac Asp	tat Tyr	ccc Pro	atc Ile	gtg Val	agg Arg	ctg Leu	ctc Leu	cga Arg	gaa Glu	cca Pro	1296	
				420						425						430	
gtc Val	cat His	gtg Val	gag Glu	gtc Val	cgg Arg	ctt Leu	ctg Leu	cag Gln	agg Arg	aca Thr	gac Asp	ccc Pro	aac Asn	ctg Leu	gtc Val	1344	
				435						440						445	
ctg Leu	ctg Leu	ctg Leu	cac His	cag Gln	tgc Cys	tgg Trp	ggc Gly	gct Ala	ccc Pro	agt Ser	gcc Ala	aac Asn	ccc Pro	ttc Phe	cag Gln	1392	
				450						455						460	
cag Gln	ccc Pro	cag Gln	tgg Trp	ccc Pro	atc Ile	ctg Leu	tca Ser	gac Asp	ggc Gly	tgc Cys	cct Pro	ttc Phe	aag Lys	ggc Gly	gac Asp	1440	
				465						470						475	480
agc Ser	tac Tyr	aga Arg	acc Thr	caa Gln	atg Met	gta Val	gcc Ala	ttg Leu	gac Asp	ggg Gly	gcc Ala	aca Thr	cct Pro	ttc Phe	cag Gln	1488	
				485						490						495	
tcg Ser	cac His	tac Tyr	cag Gln	cga Arg	ttc Phe	act Thr	gtt Val	gct Ala	acc Thr	ttc Phe	gcc Ala	ctc Leu	ctg Leu	gac Asp	tca Ser	1536	
				500						505						510	
ggc Gly	tcc Ser	cag Gln	aga Arg	gcc Ala	ctc Leu	aga Arg	gga Gly	ctg Leu	gtt Val	tac Tyr	ttg Leu	ttc Phe	tgc Cys	agc Ser	acc Thr	1584	
				515						520						525	
tct Ser	gcc Ala	tgc Cys	cac His	acc Thr	tca Ser	ggg Gly	ctg Leu	gag Glu	act Thr	tgc Cys	tcc Ser	act Thr	gca Ala	tgt Cys	agc Ser	1632	
				530						535						540	
act Thr	ggc Gly	act Thr	aca Thr	aga Arg	cag Gln	cga Arg	cga Arg	tcc Ser	tca Ser	ggt Gly	cac His	cgt Arg	aat Asn	gac Asp	act Thr	1680	
				545						550						555	560

gat tct tat ggg cag gag ccc aca ctt ggg ccc aca gac tcc aat ggg 1776  
Asp Ser Tyr Gly Gln Glu Pro Thr Leu Gly Pro Thr Asp Ser Asn Gly  
580 585 590

gtt gcc ctg gtc ctt ggg ttt ggt gtc ttt gtg ggc ctg agc cag acc 1872  
Val Ala Leu Val Leu Gly Phe Gly Val Phe Val Gly Leu Ser Gln Thr  
610 615 620

tgg gcc cag aag ctc tgg gaa agc aac aga cag tga 1908  
Trp Ala Gln Lys Leu Trp Glu Ser Asn Arg Gln \*  
625 630 635

```
<210> 2
<211> 635
<212> PRT
<213> Homo sapiens
```

 $\langle 400 \rangle$  2

Met	Ala	Gly	Gly	Ser	Ala	Thr	Thr	Trp	Gly	Tyr	Pro	Val	Ala	Leu	Leu
1				5				10						15	
Leu	Leu	Val	Ala	Thr	Leu	Gly	Leu	Gly	Arg	Trp	Leu	Gln	Pro	Asp	Pro
			20					25					30		
Gly	Leu	Arg	His	Ser	Tyr	Asp	Cys	Gly	Ile	Lys	Gly	Met	Gln	Leu	Leu
		35					40					45			
Val	Phe	Pro	Arg	Pro	Gly	Gln	Thr	Leu	Arg	Phe	Lys	Val	Val	Asp	Glu
	50					55				60					
Phe	Gly	Asn	Arg	Phe	Asp	Val	Asn	Asn	Cys	Ser	Ile	Cys	Tyr	His	Trp
65					70				75					80	
Val	Thr	Ser	Arg	Pro	Gln	Glu	Pro	Ala	Val	Phe	Ser	Ala	Asp	Tyr	Arg
				85				90					95		
Gly	Cys	His	Val	Leu	Glu	Lys	Asp	Gly	Arg	Phe	His	Leu	Arg	Val	Phe
			100					105					110		

Met	Glu	Ala	Val	Leu	Pro	Asn	Gly	Arg	Val	Asp	Val	Ala	Gln	Asp	Ala
	115						120					125			
Thr	Leu	Ile	Cys	Pro	Lys	Pro	Asp	Pro	Ser	Arg	Thr	Leu	Asp	Ser	Gln
	130						135				140				
Leu	Ala	Pro	Pro	Ala	Met	Phe	Ser	Val	Ser	Thr	Pro	Gln	Thr	Leu	Ser
145					150					155					160
Phe	Leu	Pro	Thr	Ser	Gly	His	Thr	Ser	Gln	Gly	Ser	Gly	His	Ala	Phe
				165					170					175	
Pro	Ser	Pro	Leu	Asp	Pro	Gly	His	Ser	Ser	Val	His	Pro	Thr	Pro	Ala
			180					185					190		
Leu	Pro	Ser	Pro	Gly	Pro	Gly	Pro	Thr	Leu	Ala	Thr	Leu	Ala	Gln	Pro
	195						200					205			
His	Trp	Gly	Thr	Leu	Glu	His	Trp	Asp	Val	Asn	Lys	Arg	Asp	Tyr	Ile
	210					215					220				
Gly	Thr	His	Leu	Ser	Gln	Glu	Gln	Cys	Gln	Val	Ala	Ser	Gly	His	Leu
225					230					235					240
Pro	Cys	Ile	Val	Arg	Arg	Thr	Ser	Lys	Glu	Ala	Cys	Gln	Gln	Ala	Gly
				245					250					255	
Cys	Cys	Tyr	Asp	Asn	Thr	Arg	Glu	Val	Pro	Cys	Tyr	Tyr	Gly	Asn	Thr
			260					265					270		
Ala	Thr	Val	Gln	Cys	Phe	Arg	Asp	Gly	Tyr	Phe	Val	Leu	Val	Val	Ser
	275						280					285			
Gln	Glu	Met	Ala	Leu	Thr	His	Arg	Ile	Thr	Leu	Ala	Asn	Ile	His	Leu
	290					295					300				
Ala	Tyr	Ala	Pro	Thr	Ser	Cys	Ser	Pro	Thr	Gln	His	Thr	Glu	Ala	Phe
305					310					315					320
Val	Val	Phe	Tyr	Phe	Pro	Leu	Thr	His	Cys	Gly	Thr	Thr	Met	Gln	Val
				325					330					335	
Ala	Gly	Asp	Gln	Leu	Ile	Tyr	Glu	Asn	Trp	Leu	Val	Ser	Gly	Ile	His
			340					345					350		
Ile	Gln	Lys	Gly	Pro	Gln	Gly	Ser	Ile	Thr	Arg	Asp	Ser	Thr	Phe	Gln
	355						360					365			
Leu	His	Val	Arg	Cys	Val	Phe	Asn	Ala	Ser	Asp	Phe	Leu	Pro	Ile	Gln
	370					375					380				
Ala	Ser	Ile	Phe	Pro	Pro	Pro	Ser	Pro	Ala	Pro	Met	Thr	Gln	Pro	Gly
385					390					395					400
Pro	Leu	Arg	Leu	Glu	Leu	Arg	Ile	Ala	Lys	Asp	Glu	Thr	Cys	Ser	Ser
				405					410					415	
Tyr	Tyr	Gly	Glu	Asp	Asp	Tyr	Pro	Ile	Val	Arg	Leu	Leu	Arg	Glu	Pro
			420					425					430		
Val	His	Val	Glu	Val	Arg	Leu	Leu	Gln	Arg	Thr	Asp	Pro	Asn	Leu	Val
	435						440					445			

```

<210> 3
<211> 1905
<212> DNA
<213> Artificial Sequence

<220>
<223> degenerate nucleotide sequence

<221> misc_feature
<222> 6, 9, 12, 15, 18, 21, 24, 30, 36, 39, 42, 45, 48, 51, 54,
57, 60, 63, 66, 69, 72, 75, 78, 84, 90, 96, 99, 102, 105,
111, 123, 132, 141, 144, 147, 153, 156, 159, 162, 168, 171,
174, 183, 186, 198, 204, 213, 225, 243, 246, 249, 252
<223> n = A,T,C or G

<221> misc_feature
<222> 255, 264, 267, 270, 276, 279, 288, 291, 300, 303, 315, 318,

```

327, 330, 333, 345, 348, 351, 354, 360, 363, 366, 372, 375,  
384, 387, 390, 399, 405, 411, 414, 417, 420, 423, 429, 435,  
438, 441, 444, 447, 456, 459, 462, 465, 468, 474, 477

<223> n = A,T,C or G

<221> misc\_feature

<222> 480, 486, 489, 492, 495, 498, 504, 507, 513, 516, 519, 525,  
531, 534, 537, 540, 546, 549, 555, 558, 561, 567, 570, 573,  
576, 579, 582, 585, 588, 591, 594, 597, 600, 603, 606, 609,  
612, 615, 618, 624, 633, 636, 639, 654, 663, 675, 678

<223> n = A,T,C or G

<221> misc\_feature

<222> 684, 687, 705, 708, 711, 714, 720, 723, 732, 735, 738, 741,  
744, 753, 765, 768, 786, 789, 795, 798, 810, 816, 819, 822,  
825, 837, 843, 852, 855, 858, 861, 864, 876, 879, 882, 888,  
894, 897, 900, 912, 915, 921, 924, 927, 930, 936, 939

<223> n = A,T,C or G

<221> misc\_feature

<222> 942, 951, 957, 963, 966, 978, 981, 984, 993, 996, 999, 1008,  
1011, 1014, 1023, 1041, 1044, 1047, 1050, 1068, 1071, 1077,  
1080, 1086, 1089, 1095, 1098, 1107, 1113, 1116, 1122, 1131,  
1134

<223> n = A,T,C or G

<220>

<221> misc\_feature

<222> 1143, 1146, 1155, 1158, 1167, 1170, 1173, 1176, 1179, 1182,  
1185, 1191, 1197, 1200, 1203, 1206, 1209, 1212, 1218, 1221,  
1227, 1239, 1245, 1248, 1257, 1272, 1278, 1281, 1284, 1287,  
1290, 1296, 1299, 1305, 1311, 1314, 1317, 1320, 1326

<223> n = A,T,C or G

<221> misc\_feature

<222> 1329, 1335, 1341, 1344, 1347, 1350, 1353, 1368, 1371, 1374,  
1377, 1380, 1386, 1398, 1407, 1413, 1416, 1422, 1428, 1437,  
1443, 1449, 1452, 1461, 1464, 1467, 1473, 1476, 1479, 1482,  
1491, 1503, 1509, 1512, 1515, 1518, 1524, 1527, 1530

<223> n = A,T,C or G

<221> misc\_feature

<222> 1536, 1539, 1542, 1548, 1551, 1554, 1557, 1560, 1563, 1566,



1572, 1581, 1584, 1587, 1590, 1599, 1602, 1605, 1608, 1614,  
1620, 1623, 1626, 1632, 1635, 1638, 1641, 1644, 1647, 1653,  
1656, 1659, 1662, 1665, 1671, 1680, 1683, 1686, 1689  
<223> n = A,T,C or G

<221> misc\_feature

<222> 1701, 1704, 1707, 1710, 1713, 1716, 1719, 1722, 1734, 1740,  
1749, 1752, 1755, 1758, 1761, 1764, 1770, 1776, 1782, 1785,  
1788, 1791, 1794, 1797, 1800, 1806, 1809, 1812, 1815, 1818,  
1821, 1824, 1827, 1830, 1833, 1836, 1839, 1842, 1848  
<223> n = A,T,C or G

<221> misc\_feature

<222> 1851, 1857, 1860, 1863, 1866, 1872, 1878, 1887, 1896, 1902  
<223> n = A,T,C or G

<400> 3

atggcnggng gnwsngcnac nacntggggn tayccngtng cnytnytnyt nytngtngcn 60  
acnytnngny tnggnmgntg gytnccarccn gayccnggny tnmgnccayws ntaygaytgy 120  
ggnathaarg gnatgcaryt nytngtntty ccmngnccng gncaracnyt nmgnnttyaar 180  
gtngtngayg arttyggnaa ymgnttygay gtnaayaayt gywsnathtg ytaycaytgg 240  
gtnacnwsnm gncncarga rccngcngtn ttywsngcng aytaymgngg ntgycaygtg 300  
ytngaraarg ayggnmgntt ycayytnmgn gtnttyatgg argcngtnyt nccnaayggn 360  
mgngtngayg tngcncarga ygcnacnytn athtgyccna arccngaycc nwsnmgnacn 420  
ytngaywsnc arytnngcnc nccngcnatg ttywsngtnw snacnccnca racnytnwsn 480  
ttyytnccna cnwsnggnc yacnwsncar ggnwsnggnc aygcnttycc nwsnccnytn 540  
gayccnggnc aywsnwsngt ncayccnacn ccngcnytn cnwsnccngg nccnggncn 600  
acnytnngcna cnytnngcna rccncaytgg ggnacnytn arcaytggga ygtnaayaar 660  
mgngaytaya thggnacnca yytnwsncar garcartgyc argtnngcws nggncayytn 720  
ccntgyathg tnmgnmgnc nwsnaargar gcntgyarc argcnggntg ytytaygay 780  
aayacnmng argtnccntg ytaytayggn aayacngcna cngtnccartg yttymngay 840  
ggntayttyg tnytngtngt nwsncargar atggcnytna cncaymgnt hacnytnngcn 900  
aayathcayy tngcntaygc nccnacnwsn tgywsnccna cncarcayac ngargcntty 960  
gtngtnttyt aytyccnytn nacncaytgy ggnacnacna tgcargtngc nggngaycar 1020  
ytnathtayg araaytggyt ngtnwsnggn athcayathc araarggncc ncarggnwsn 1080  
athacnmng aywsnacntt ycarytnca ytnmgntgy tnttyaaygc nwsngaytty 1140  
ytncnathc argcnwsnat httyccnccn ccnwsnccng cncnccatgac ncarccnggn 1200  
ccnytnmgny tngarytnmg nathgcnaar gaygaracnt gywsnwsnta ytayggngar 1260  
gaygaytayc cnathgtng nytnytnmgn garccngtnc aygtngargt nmgnnytnytn 1320  
carmgnacng ayccnaayyt ngtnytnytn ytncaycart gytggggngc nccnwsngcn 1380  
aayccnttyc arcarcnca rtggccnath ytnwsngay gntgyccntt yaarggngay 1440  
wsntaymna cncaratggt ngcnytnay gngcncacn cnttycarws ncaytaycar 1500  
mgnttyacng tngcnacntt ygcnytnytn gaywsnggnw sncarmngnc nytnmgnggn 1560

ytngtntayy tnttytgyws nachwsngcn tgyacayacnw snggnytnga racntgywsn 1620  
 acngcntgyw snacnggnac nachmgncar mgnmgwnsw snggncaymg naaygayacn 1680  
 gcnmgncnc argayathgt nwsnwsnccn ggnccngtng gnttygarga ywsntayggn 1740  
 cargarccna cnytnngncc nacngaywsn aayggnaayw snwsnytnmg nccnytnytn 1800  
 tgggcngtny tnytnytncc ngcngtngcn ytngtntyng gnttyggngt nttygtnggn 1860  
 ytnwsncara cntgggcnca raarytntgg garwsnaaym gncar 1905

<210> 4

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide primer ZC29717

<400> 4

aaaaggggcc acagggttc 19

<210> 5

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide primer, ZC29869

<400> 5

tctcggagca gcctcacgat g 21